

IN THE CLAIMS

Please cancel claims 1-27 without prejudice. Claims 30-35 are new.

The following claims are now pending in the present application:

1-27. (Cancelled)

28. (Currently amended) A method of making a plurality of dice, comprising:
forming a layer of solid diamond and a layer of monocrystalline semiconductor material on one another;
manufacturing a plurality of integrated circuits on the layer of monocrystalline semiconductor material; and
severing the layer of solid diamond between the integrated circuits.

29. (Currently amended) The method of claim 28, further comprising:
implanting ions into a surface of a wafer of monocrystalline semiconductor material, the layer of solid diamond thereafter being located over the surface of the monocrystalline wafer; and
shearing a portion of the monocrystalline wafer not implanted with the ions from a portion of the monocrystalline wafer implanted with the ions, the portion of the monocrystalline wafer implanted with the ions forming the layer of monocrystalline semiconductor material.

30. (New) The method of claim 28, further comprising:

forming a support layer with the layer of solid diamond between the support layer and the layer of monocrystalline semiconductor material; and

severing the support layer so that respective portions thereof form part of respective ones of the dice.

31. (New) A method of making a plurality of dice, comprising:

forming a layer of solid diamond on a wafer of monocrystalline semiconductor material;

grinding a portion of the monocrystalline semiconductor material down;

forming an epitaxial layer of semiconductor material on the monocrystalline semiconductor material;

forming a plurality of integrated circuits in and on the epitaxial layer, to form a combination wafer; and

severing the combination wafer between the integrated circuits to singulate dice of the combination wafer from one another.

32. (New) A method of making a plurality of dice, comprising:

forming a layer of solid diamond on a sacrificial wafer;

forming a layer of material on the layer of solid diamond;

implanting ions into a monocrystalline semiconductor material;

bonding a side of the monocrystalline semiconductor material through which the ions are implanted to the layer of material;

severing a portion of the monocrystalline semiconductor material from a final

portion thereof that is bonded to the layer of material;

forming an epitaxial layer of semiconductor material on the monocrystalline semiconductor material;

forming a plurality of integrated circuits in and on the epitaxial layer, to form a combination wafer; and

severing the combination wafer between the integrated circuits to singulate dice of the combination wafer from one another.

33. (New) The method of claim 32, further comprising:

removing the layer of solid diamond from at least a portion of the sacrificial wafer.

34. (New) The method of claim 33, wherein the layer of solid diamond is removed from the sacrificial wafer before the combination wafer is severed to singulate the dice.

35. (New) The method of claim 32, wherein the layer of solid diamond remains on the sacrificial wafer at least until the portion of the monocrystalline semiconductor material is severed from the final portion thereof.